

# Secure connection problem

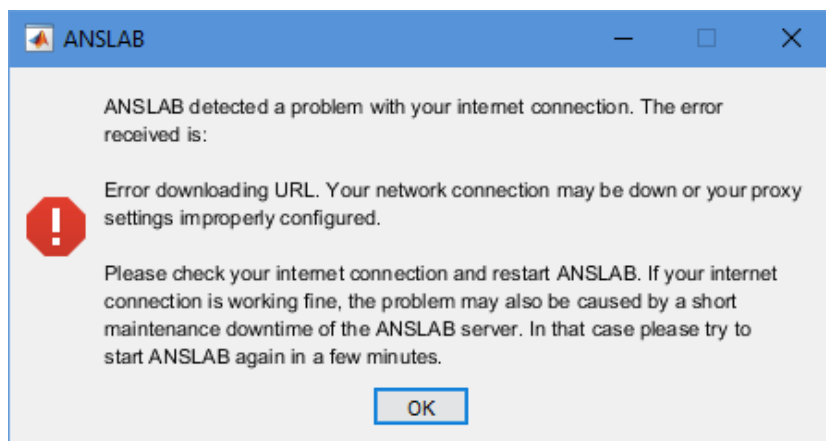
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## Affected ANSLAB versions

2.6 v37 and newer (v16 and newer in case of ANSLAB 2.6p)

## Problem description

When ANSLAB starts up and tries to perform a check for updates, an error message like the following is shown:



## Reason

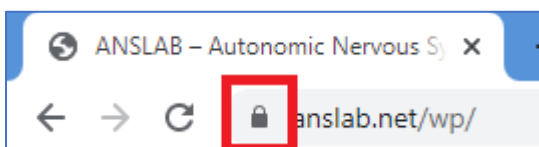
It seems like the MATLAB version used does not trust the SSL certificate of our server.

## Solution

Since this problem seems to have been resolved in MATLAB R2017b and newer versions, the easiest solution to this problem is to use a more recent version of MATLAB, if available.

If using another version of MATLAB is no option, following the steps outlined below should resolve the problem too. The steps below are based on the Google Chrome browser running on Windows. If you are using a different browser and/or operating system, some of the steps are likely to be a bit different. But the general idea is the same.

- 1) Close MATLAB
- 2) Visit <https://www.anslab.net> using the Google Chrome browser.
- 3) Click on the lock icon shown in the address bar next to the URL:



- 4) Click on "Connection is secure" and then on "Certificate is valid".
- 5) In the new window shown, change to the tab "Details" and click on the button "Export" in the bottom right.
- 6) Save the certificate file to a folder of your choice.
- 7) Open a console with administrator privileges (i.e. run "cmd.exe" as administrator)
- 8) Change the current directory to the subfolder

```
sys\java\jre\win64\jre\bin
```

within your MATLAB program directory. So, if for example, MATLAB has been installed to the folder

```
C:\Program Files\MATLAB\R2017a
```

change the current directory to

```
C:\Program Files\MATLAB\R2017a\sys\java\jre\win64\jre\bin
```

- 9) Run the following command to add the certificate just downloaded to the list of trusted ones (replace the paths with the correct ones):

```
keytool -importcert -file <path to the certificate file> -alias anslab -  
keystore <path to MATLAB>\sys\java\jre\win64\jre\lib\security\cacerts
```

**Important:** please ensure that all commands shown in this document are entered on a single line (i.e. without a line break).

If, for example, the certificate file has been saved as

```
c:\certs\www.anslab.net.crt
```

and your MATLAB installation resides inside the folder

```
C:\Program Files\MATLAB\R2017a
```

the command to be run is as follows:

```
keytool -importcert -file c:\certs\www.anslab.net.crt -alias anslab -keystore  
"C:\Program Files\MATLAB\R2017a\sys\java\jre\win64\jre\lib\security\cacerts"
```

You are then asked for a password. The default password for the keystore is

```
changeit
```

Once the password has been entered, you are asked whether you want to trust the certificate. Enter the text *Yes* and press <ENTER> (Note: the text to be entered may change, depending on the language of your operating system).

A message, indicating that the certificate has been added to the keystore, should be shown now.

- 10) Start MATLAB

- 11) Enter the command

```
java.lang.System.setProperty('https.protocols', 'TLSv1,TLSv1.1,TLSv1.2');
```

in the command window.

- 12) ANSLAB should now start without any problems.

**Note:** the command entered in step 11) does not perform a persistent change. So, in order to run ANSLAB, this command needs to be entered every time MATLAB is started. Another possibility is to place the command inside a file, which is executed every time MATLAB is started.

To achieve this, enter the command

```
edit(fullfile(userpath, 'startup.m'))
```

into the command window. If the file `startup.m` does not exist already inside your documents folder, you are asked whether you want to create it now. Choose “Yes” here.

Now paste the command from step 11) into the editor and save the file. From now on, each time MATLAB is started, the command should get executed automatically. So, after restarting MATLAB now, ANSLAB should run fine without the need of entering the command from step 11) again.

**Important:** unfortunately, the solution presented above is likely to not be a permanent one. Since the certificate on our server is renewed every 90 days, it may be necessary to carry out the steps 1) to 9) from above again if you encounter the connection issue again.

But since the certificate is already in the keystore, it needs to be deleted first before the renewed one can be added. To delete the old certificate, run the following command from the command line right after step 8) (assuming the same paths as used above):

```
keytool -delete -alias anslab -keystore "C:\Program Files\MATLAB\R2017a\sys\java\jre\win64\jre\lib\security\cacerts"
```

After entering the password, the certificate should get removed successfully. Now, proceed with step 9). ANSLAB should start without any problems again.